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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/833,106	04/04/1997	JEFFREY ALAN SMALL	74892MSS	1958

1333 7590 11/29/2004

PATENT LEGAL STAFF
EASTMAN KODAK COMPANY
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EXAMINER

WILSON, JACQUELINE B

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 11/29/2004

34

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

08/833,106

Applicant(s)

SMALL, JEFFREY ALAN

Examiner

Jacqueline Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-35, 37-44 is/are allowed.
- 6) ☒ Claim(s) 36 and 45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

NOTE: This case has been assigned to another examiner, Jacqueline Wilson.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 36 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koike et al (US 5,237,401), in view of Ohta (US 6,108,008), Waibel et al (US 5,812,243) and Parulski et al (US 5,040,068).

Regarding Claim 36, Koike et al discloses a color image reading apparatus (fig. 1) in which an image is formed on a multi-chip image sensor (5), where it is digitized and amplified. The image signal is then sent to a signal processing section (7) where it is initially processed and temporarily stored in volatile memory (8; col. 4, lines 37-45). The image signal data is then compressed by the CPU (11) and stored in memory (12; col. 5, lines 54-58). Koike et al further discloses a memory 13 which is a nonvolatile memory (col. 6, lines 37-43) that stores color correcting coefficients calculated by CPU (11) which allows for compensation of color reproducing characteristics of output equipment, such as a printer (col. 1, lines 33+), by using the CPU (11) and the stored correction coefficients stored in memory (13) to correct the image data (col. 6, lines 8-

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26). Since Koike et al discloses compensating for output equipment such as a printer, a printer interface is inherent in the Koike et al image reading apparatus. Koike et al does not explicitly state that the image data is decompressed. However, it would have been obvious to decompress the image data in order to use the processed image data. Koike et al does not explicitly state that the memory (12) is a nonvolatile memory. However, official notice is taken to the fact that using a nonvolatile memory prevents loss of image data due to power failure. Koike et al does not disclose a color space transformation or a printer interface for receiving process color and printing process parameters from the printer. Ohta discloses a first color space transformation and compression transforming R, G, B values into L^*a^*b values then further converting into $L^*a^{**}b^{**}$ and then to R,G,B values which are displayed which infers decompression (col. 9, lines 1-21). Therefore, it would have been obvious to modify Koike et al image reading apparatus to include a color space transformation as taught by Ohta to exactly reproduce an image processing system that may be used in an image input device such as a scanner (col. 3, lines 46-50), which is equivalent to a camera. The image processing of Ohta may be exhibited in a camera and the printer condition setting means acts as a printer interface for the Ohta color processing system by setting various output conditions of the printer (col. 4, lines 16-22). Ohta further discloses, in fig. 2, an image processing apparatus which includes a printer condition setting means (9) used to set various conditions of the connected printer setting means (8) for setting the kind of connected printer. The output profile memory (7) stores the output profile representing the printer characteristics (col. 4, lines 53-60). Therefore, it would have been obvious to modify the Koike et al image

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reading apparatus to printer interface for receiving process color and printing process parameters from different printers having different predetermined processes to provide the convenience of interchangeable printers.

Although media transport mechanism and marking apparatus for producing a print using process colors is notoriously well known in printer, a reference will be used to teach this fact. Waibel et al teaches a media transport mechanism (1) and marking apparatus (11) in a printer for producing images of captured objects. Since both Koike and Ohta are silent on the teachings of the printer, it would have been obvious to use a printer similar to Waibel et al for the purpose of generating prints of objects. Therefore, it would have been obvious to one having ordinary skill in the art to use a media transport mechanism and marking apparatus for producing a print.

Although Koike et al teaches an image processor, Koike et al fails to specifically teach the first plurality of stored image processing algorithms include color filter array interpolation and tone scale compensation. However, Parulski et al teaches color filter interpolation, tone scale compensation, as well as other processing (col. 7, lines 55+) stored for use in the camera for manipulating the image for producing quality images. It would have been obvious to use these techniques in Koike et al for implementing appropriate corrections to an image. Therefore, it would have been obvious to one having ordinary skill in the art to use color filter array interpolation and tone scale compensation for producing quality images.

Regarding Claim 45, Koike et al teaches a digital camera (referred to as a scanner) is a portable, handheld digital capture device (. MPEP 2173.05(g) states "A

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functional limitation must be evaluated and considered, just like any other limitation of the claim for what it fairly conveys to a person of ordinary skill in the pertinent art". In this case, the system is "adapted to" to capture original digital images of objects at varying distances and in variable ambient light conditions.

Allowable Subject Matter

3. Claims 26-35, and 37-44 are allowed.

The prior art neither teaches nor fairly suggests a digital imaging system comprising a digital camera, a volatile memory, a program memory, an image processor, a nonvolatile memory, a printer interface for directly connecting the digital camera to the digital printer to enable the digital camera **to receive fixed printer parameters and variable printer parameters from the digital printer and to provide second processed image data to the digital printer**, and a parameter memory, the printer comprising a media transport mechanism and a marking apparatus for producing print using process colors, a memory for storing the fixed and variable printer parameters, a processor, and a camera interface, wherein the image processor in the digital camera executes a second plurality of stored image processing algorithms in order to produce the second processed image data, the second plurality of stored image processing algorithms including decompression, color space transformation into color planes that coincide with the process of the digital printer, and compensation for the printing process, **the compensation being responsive to the to the fixed and**

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variable printer parameters stored in the parameter memory, as claimed in Claim 26.

Claim 37 is substantially similar to Claim 26.

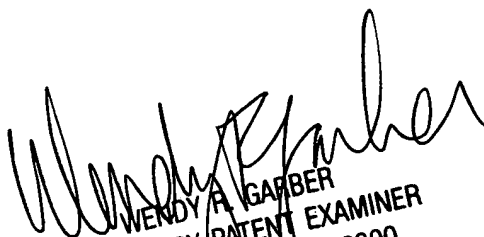
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacqueline Wilson whose telephone number is (703) 308-5080. The examiner can normally be reached on 8:30am-5:00pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JW
10/29/04


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